**a.** **a line containing point *A***

The line can be named as ℓ. Also, any two of the three points on the line can be used to name it.

, , or

**b. a plane containing point *D***

ℓ

ℓ

**Lesson 1-1**

**Study Guide and Intervention**

***Points, Lines, and Planes***

*Glencoe Geometry*

Chapter 1

**5**

**10.** Line contains points *X* and *Y*.

**9.** Point *Y* is not collinear with points *T* and *P*.

**8.** Point *X* is collinear with points *A* and *P*.

**7.** intersects at *P*.

**6.** is in plane *Q*.

**Draw and label a figure for each relationship.**

**5.** Name a point not on line ℓ or line *m*.

**4.** What is another name for line ℓ?

**3.** Name a point not on .

*E*

*m*

**2.** What is another name for line *m*?

*C*

*B*

**1.** Name a line that contains point *A*.

*A*

*D*

**Exercises**

**Refer to the figure.**

The plane can be named as plane or can be named using three

noncollinear points in the plane, such as plane *ABD*, plane *ACD*, and so on.

*C*

*B*

*D*

*A*

**Use the figure to name each of the following.**

**Example**

**Name Points, Lines, and Planes** In geometry, a **point** is a location, a **line** contains points, and a **plane** is a flat surface that contains points and lines. If points are on the

same line, they are **collinear**. If points on are the same plane, they are **coplanar**.

**1-1**

NAME DATE PERIOD







*A*

**Points, Lines, and Planes in Space Space** is a boundless, three-dimensional set of all points. It contains lines and planes. The **intersection** of two or more geometric figures

is the set of points they have in common.

**Study Guide and Intervention** *(continued)*

***Points, Lines, and Planes***

*I*

*Glencoe Geometry*

Chapter 1

**6**

**6.** Do planes *GFE* and *HBC* intersect? Explain.

*J*

*E*

*F*

**5.** Name the line of intersection of planes *GAB* and *FEH*.

*H*

*G*

*C*

*D*

**4.** Name the three line segments that intersect at point *A*.

*B*

*A*

**Refer to the figure.**

**3.** Does intersect ? Explain.

*E*

**2.** Name the intersection of and .

*D*

*N*

*C*

*B*

**1.** Name the intersection of plane and line .

*A*

**Exercises**

Refer to the figure.

*C*

*D*

**b.** **Does intersect point *D*? Explain.**

No. is coplanar with *D*, but *D* is not on the line .

*B*

*O*

**Example**

**a.** **Name the intersection of the planes *O* and.**

The planes intersect at line .

**1-1**

NAME DATE PERIOD





